

2017 Basic Planning Academy

Statewide Rail and Transit Planning



Kyle Grading
Assistant Division Chief

May 16, 2017

DRMT Planning Efforts

DRMT Efforts:

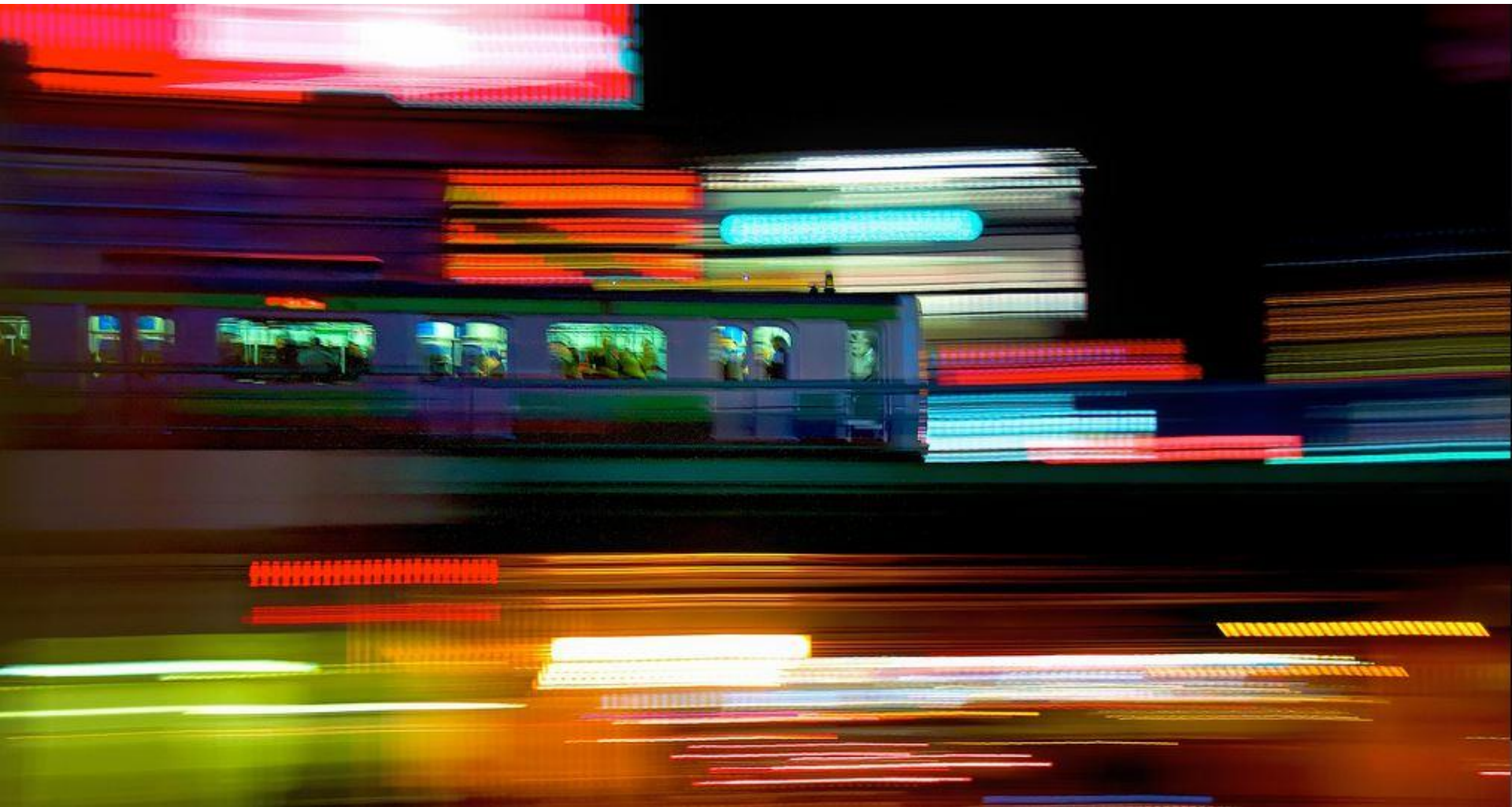
- State Rail Plan
- Statewide Transit Strategic Plan
- California Intercity Bus Study

Coordination with JPAs, CHSRA, and Host Railroads:

- Connected Corridor Studies
- Blended Operations
- Freight Corridors

But First, A Word About Railroad Capacity and Planning



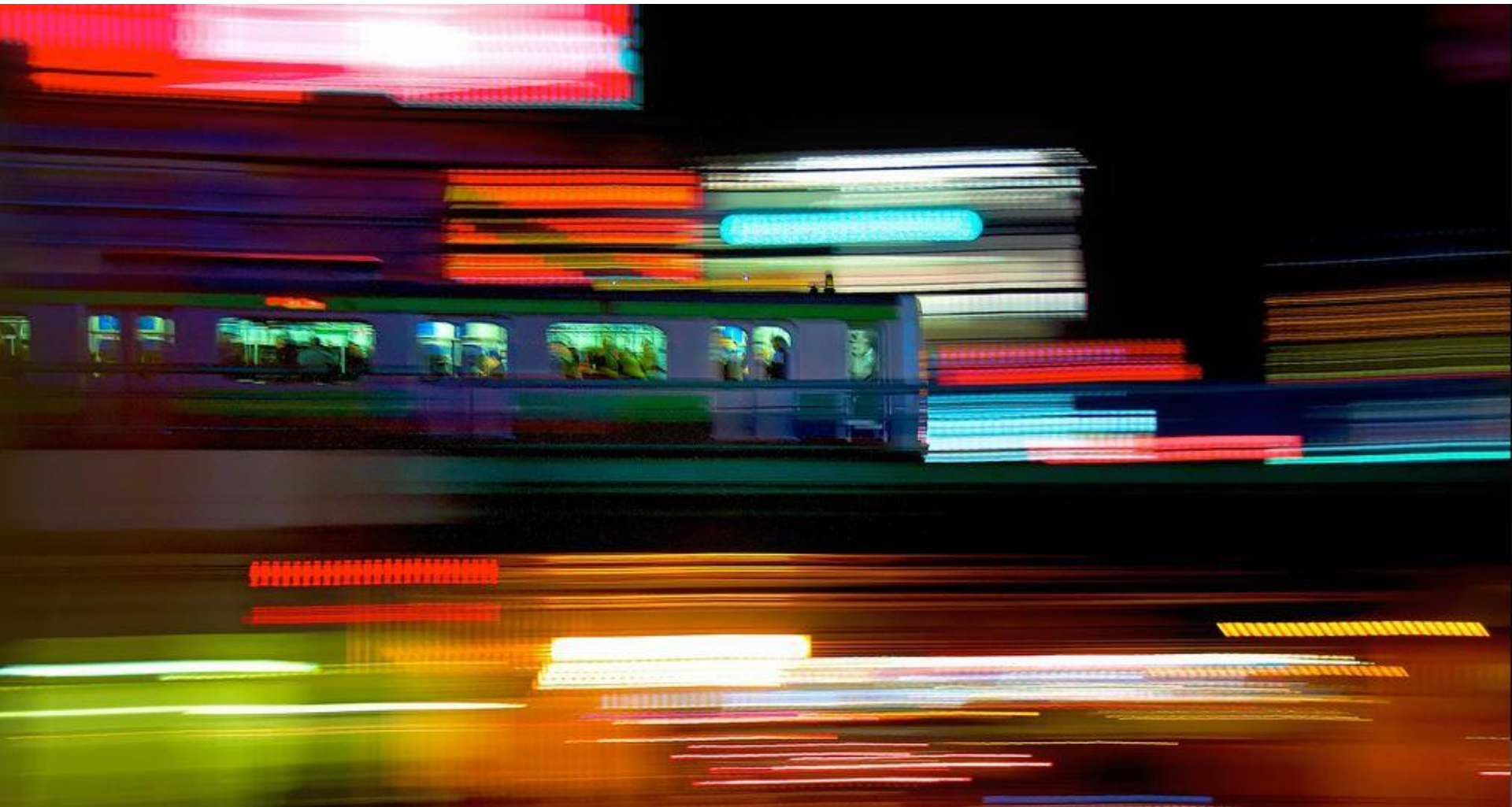


A Word About Rail Planning

A Word About Rail Planning

Two Unique Characteristics of Rail

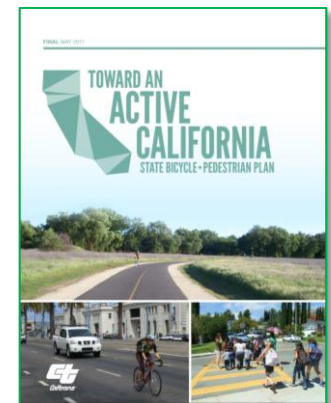
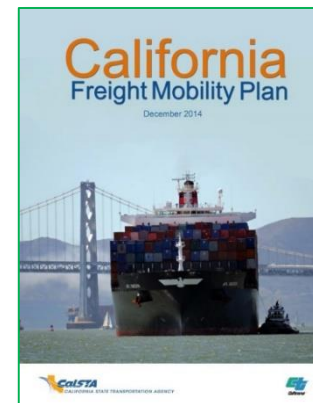
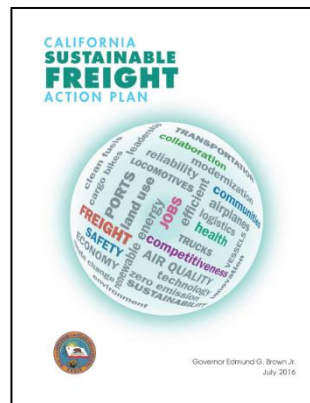
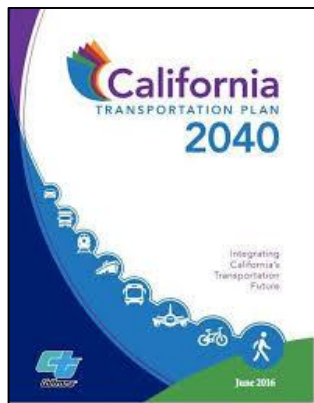
- Capacity
 - Rail *CAN* transport extraordinary amounts of goods and people
 - *>12,000 passengers per hour on one track*
 - *>2,000 containers per hour on one track*
- Ownership
 - Limited public ownership
 - Need to define SYSTEM needs and balance them
 - Impact on project development process



State Rail Plan



State Rail Plan: Coordination Among State Plans



Overview: Rail Plan Scope

- Establishes strategic vision for statewide rail network
- **PRIIA** (Passenger Rail Investment and Improvement Act)
 - Short (4-year) and long-term (20-year) Rail Investment Plan
 - Analysis of “Program Effects”
- **AB 528**: State-specific requirements
 - 10-year intercity rail capital plan
 - Passenger rail network integration



Passenger Rail Network Integration

Meeting
Customer
Expectations

Synchronized
Timetables

Integrated
Mobility
Solution

Co-opetition

Strategic
Planning

Consensus
Vision



Rail Plan Vision: Network Goals

- **Connect California's communities**
 - Provide access to 90 percent of residents
 - Develop emerging regional rail networks
- **Mode share shift**
 - Increase rail share of travel market
 - Leverage freight rail capacity enhancements
- **Efficiency and effectiveness**
 - More intensive utilization
 - Infrastructure savings
 - Higher frequencies
 - More riders driving down costs and subsidies



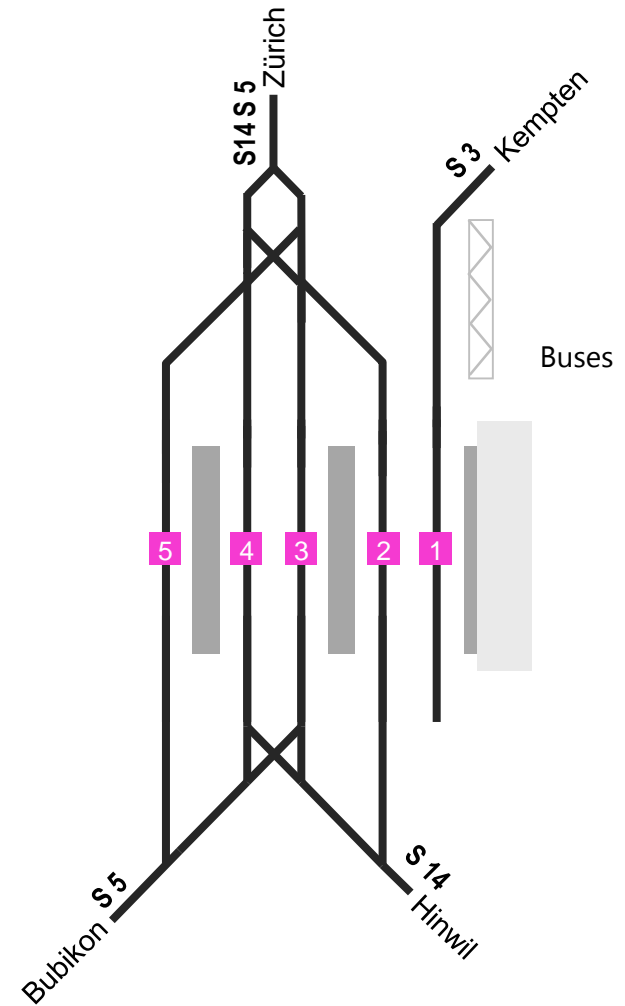
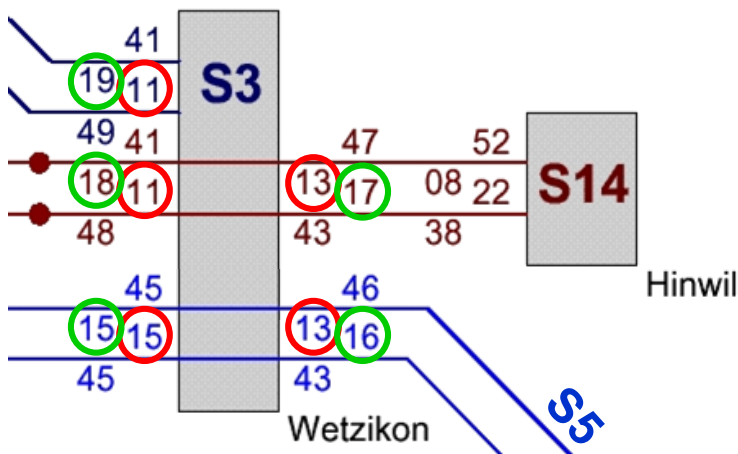
Rail Plan Vision: Passenger Rail Key Features












- Integrated Statewide Network
 - **High Speed Rail**
 - **Express and Local Services**
 - **Integrated Express Bus**
- Multimodal connection points
 - **Regular pulsed service**
 - **Key hubs**
 - **Mass Transit Connections**
- Auto and air competitive

An Example of an Integrated Network - Wetzikon

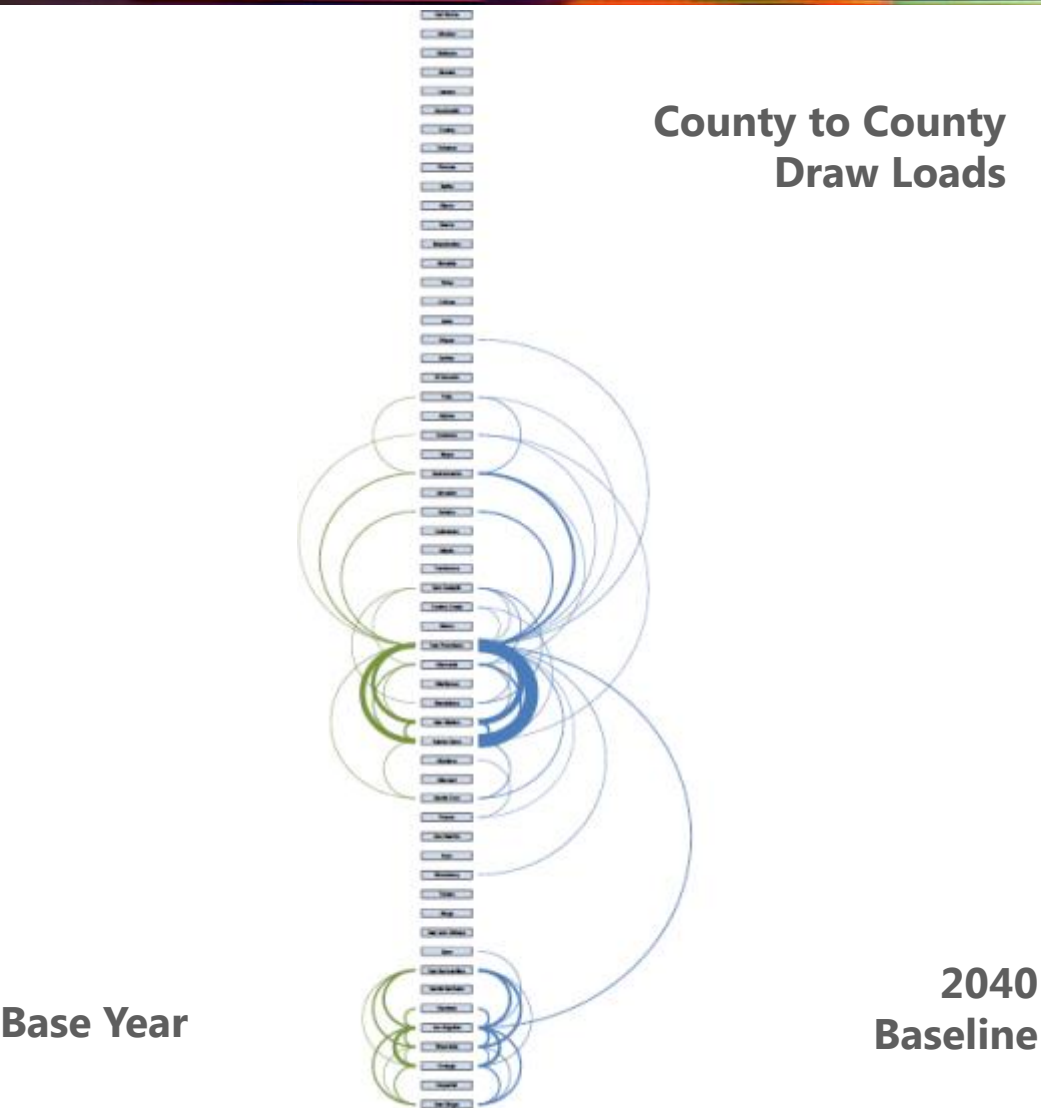
1. Buses arrive in advance of the trains
2. Trains arrive in the station
3. All services are in the station
4. Trains depart from the station
5. Buses depart from the station



Rail Plan Vision: Statewide Travel Competitiveness

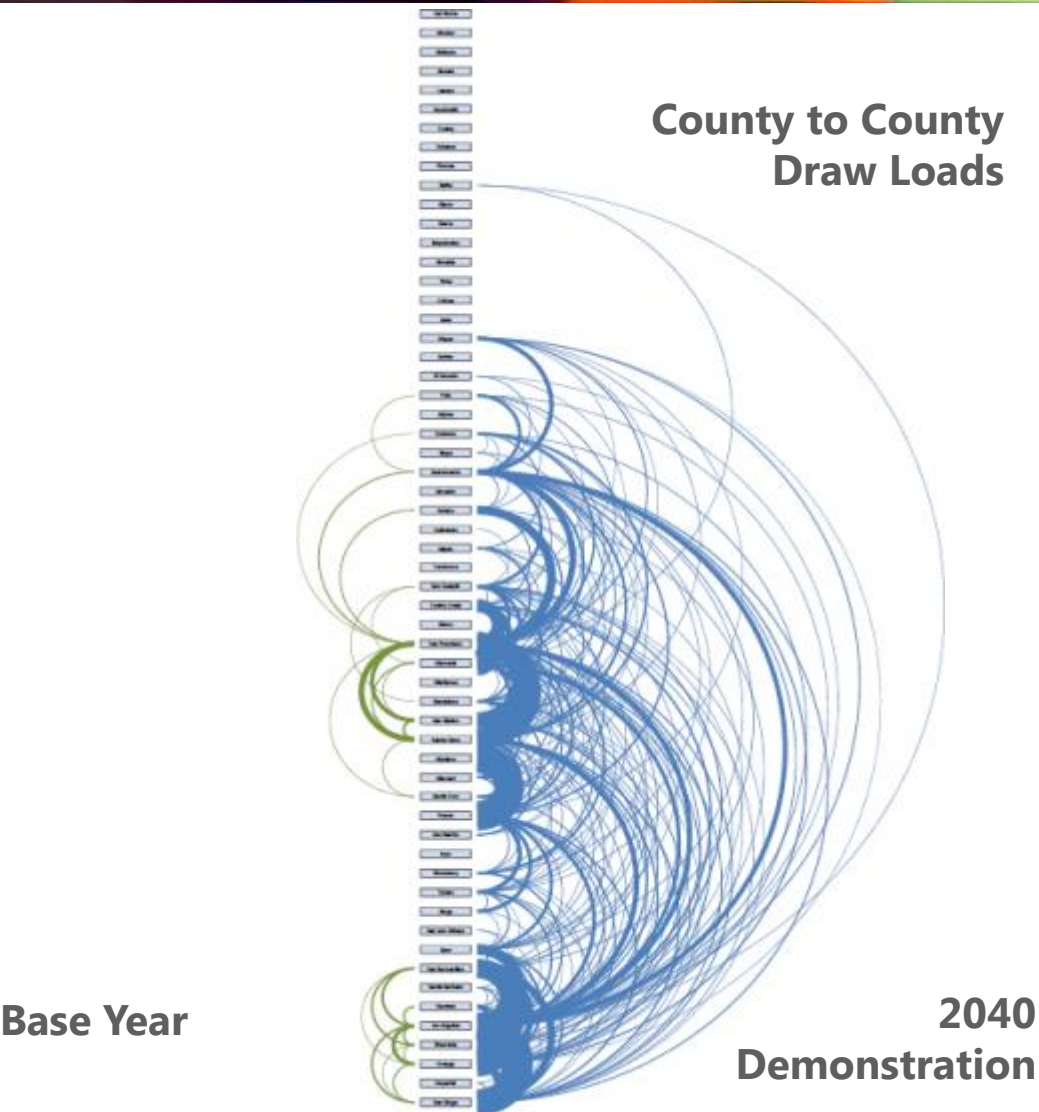
Los Angeles to San Francisco	 <2.7 Hours	 3.5 Hours	 >5.5 Hours
San Jose to San Diego	 <4 Hours	 3.5 Hours	 >7 Hours
Ontario to Sacramento	 <4 Hours	 3.5 Hours	 >6.5 Hours
Fresno to San Francisco	 <2 Hours	 3 Hours	 >3 Hours

Rail Plan Performance: Baseline 2040 Ridership



- Results show moderate increase in rail ridership demand due to **population growth**
- However, market potential for networked services is **unrealized**

Rail Plan Performance: Integrated Network 2040 Scenario



- Result of integration and HSR shows **huge increase** in rail ridership demand
- Satisfies a **large market** potential for **networked services**

Rail Plan Vision: Freight System Opportunities

Trade Corridor
Improvements

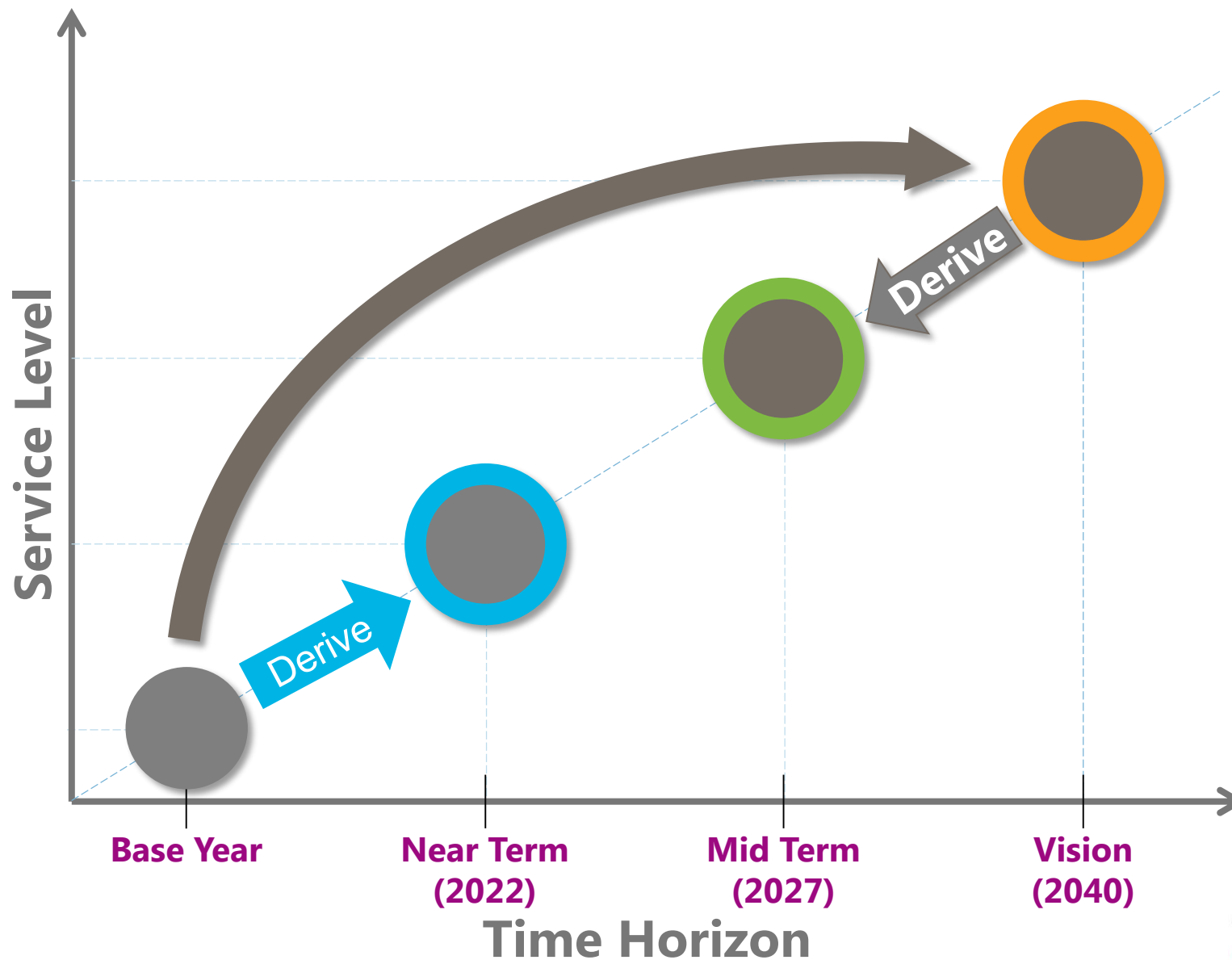
Economic
Development
and Short Lines

Grade Crossing
Improvements

Terminal and
Yard Capacity

Short Haul
Services

Investment Strategy: Phasing of the Vision Plan



Investment Strategy: Principles

Tailored to market demand

Maximize
shared
corridor
benefits

Avoid
redundant
infrastructure

Minimize
temporary
investments

Investment Strategy: Passenger Network

2022 Short Term Plan:

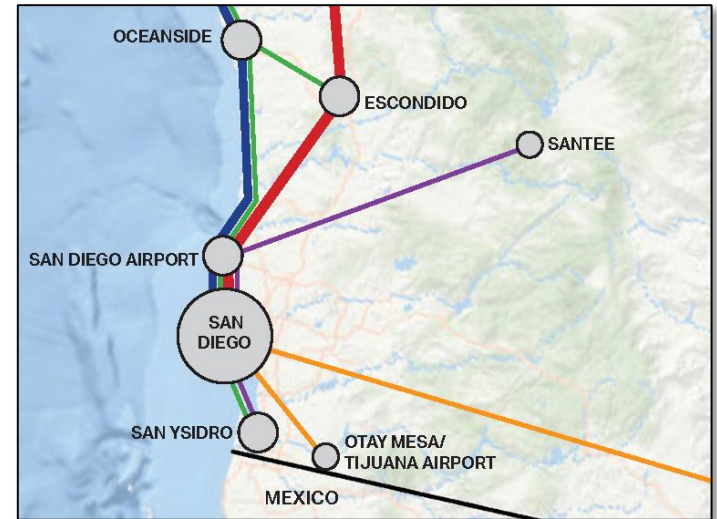
- Planned & committed projects
- Service Implementation Planning
- Integrated ticketing investments

2027 Mid-Term Plan:

- Funding Reasonably Expected
- Full utilization of existing capacity
- High Speed Rail Phase 1
- Connectivity improvements
- Fully develop integrated ticketing

2040 Long-Term Vision

- High Speed Rail Phase II
- Expansion of network capacity
- Regional network implementation



Investment Strategy: Freight Rail Investment

2022 Short Term Plan:

- Existing rail bottlenecks
- Safety
- Established funding sources

2027 Mid-Term Plan:

- Expansion of freight capacity
 - TCIF-type freight program
- Investment in shared rail corridors

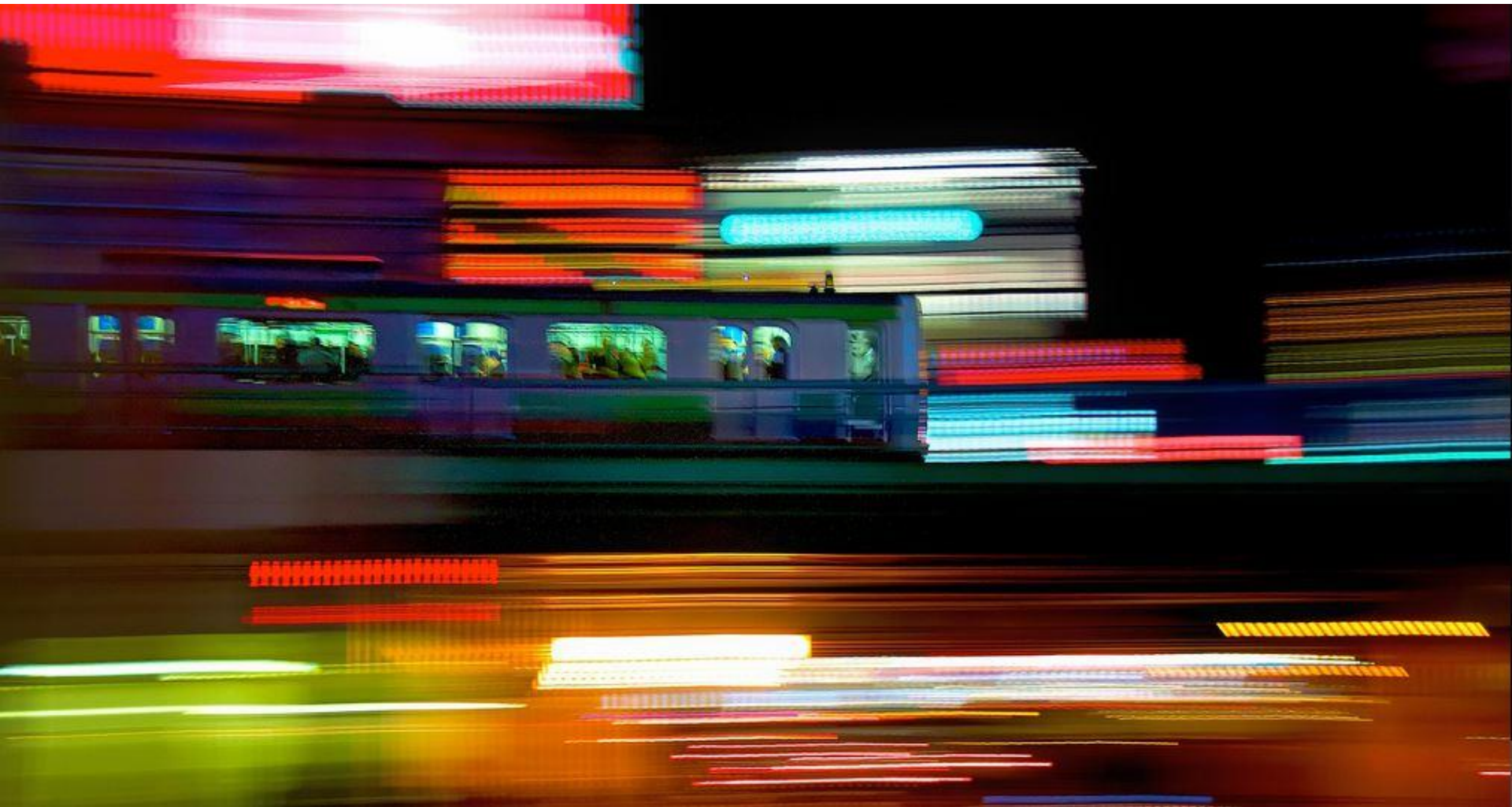
2040 Long-Term Vision

- Full realization of trade corridor improvements
- Shared corridor expansion
- Interregional transportation corridors



Project Schedule

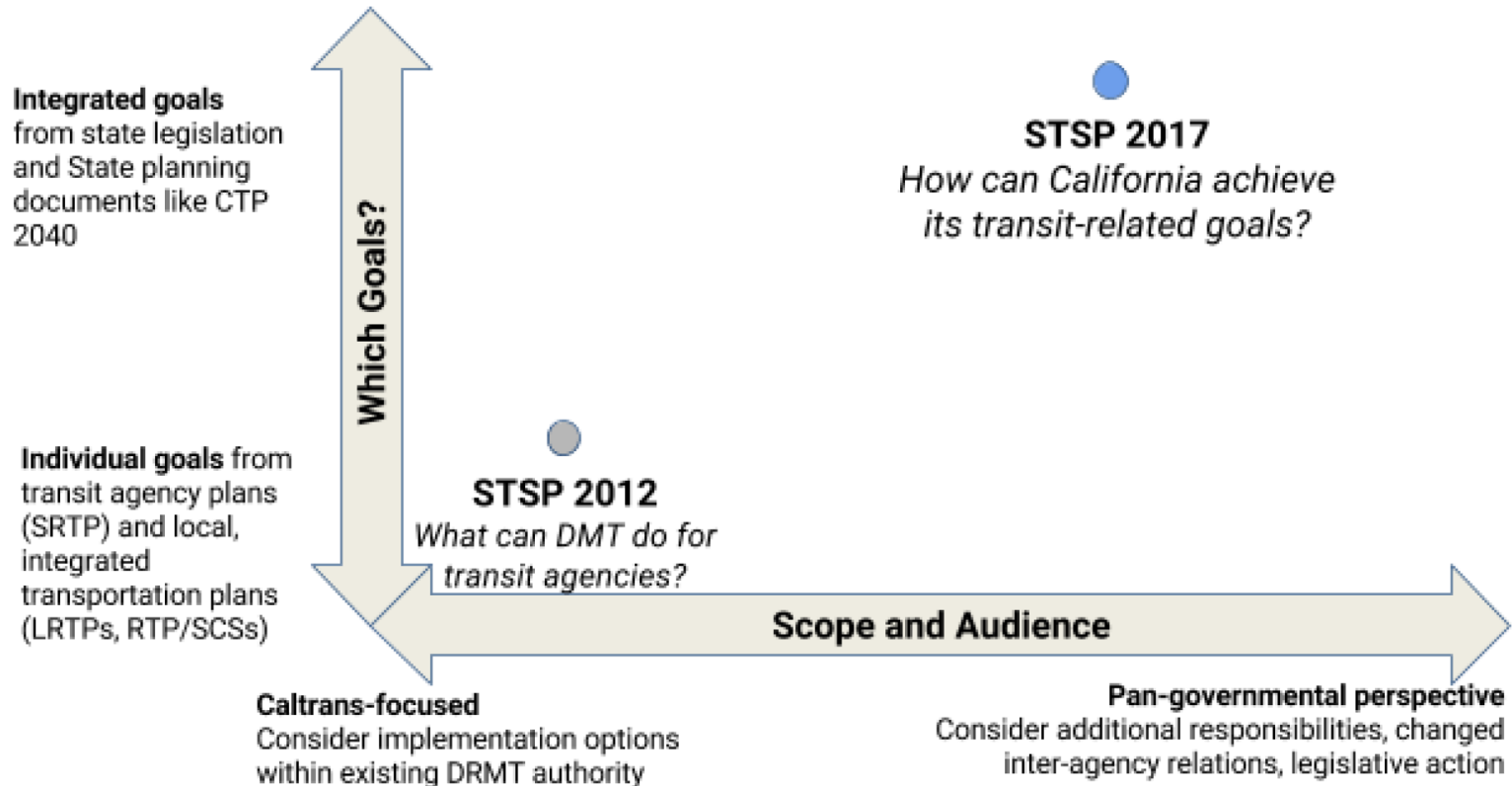
Project Milestones	Timeframe
Vision 2040 Development & Technical Work	✓ July 2015 – December 2016
Development of Draft	June 2016 - May 2017
Release of Public Review Draft	June 2017
Public Comment Period Public Workshops on Draft CSRP	60 Days
Revision of Draft	August – November 2017
CTC, FRA & CalSTA Reviews Submittal to Legislature	December 2017 Winter 2017/ Spring 2018

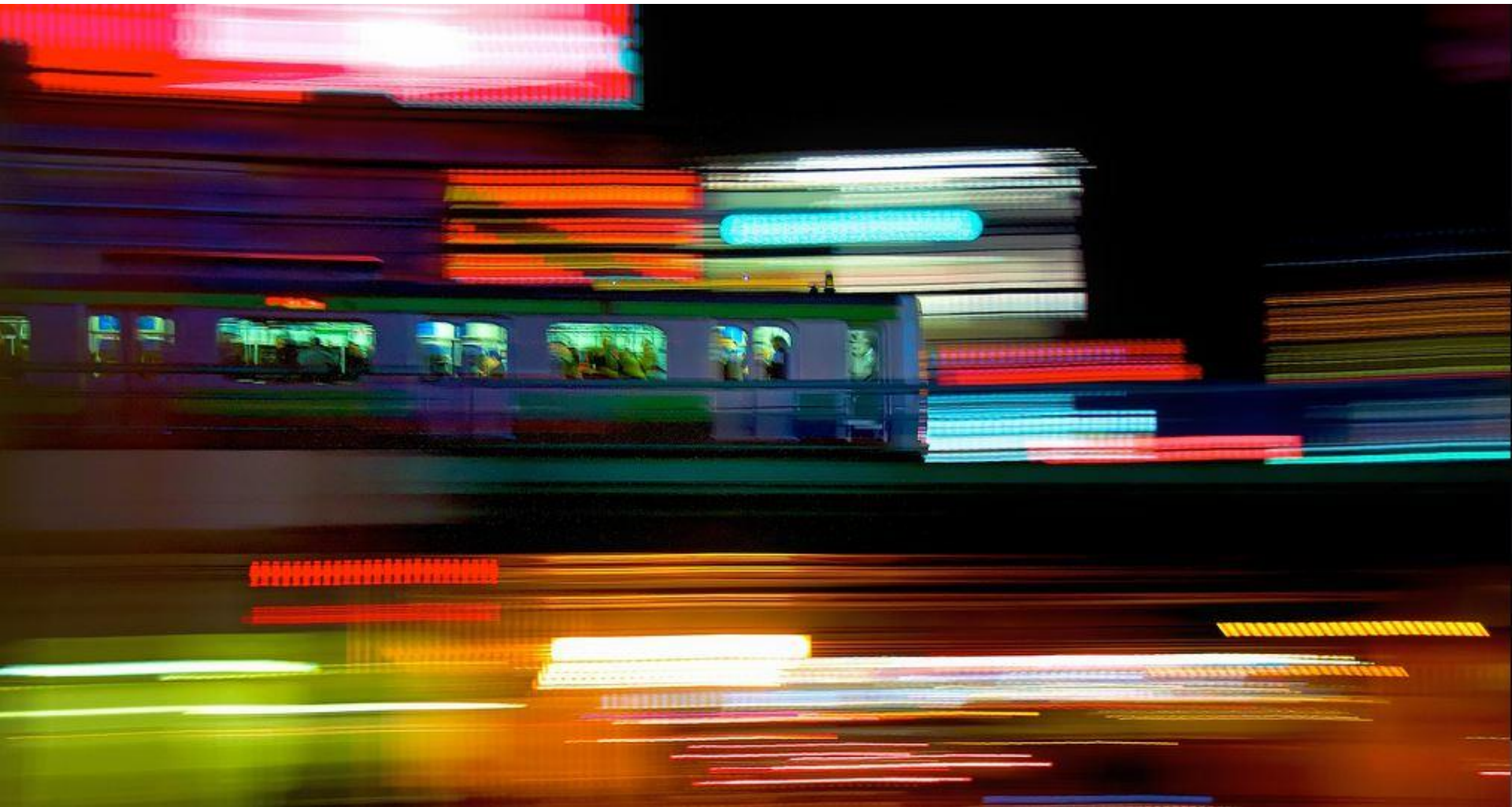


Statewide Transit Strategic Plan



Statewide Transit Strategic Plan



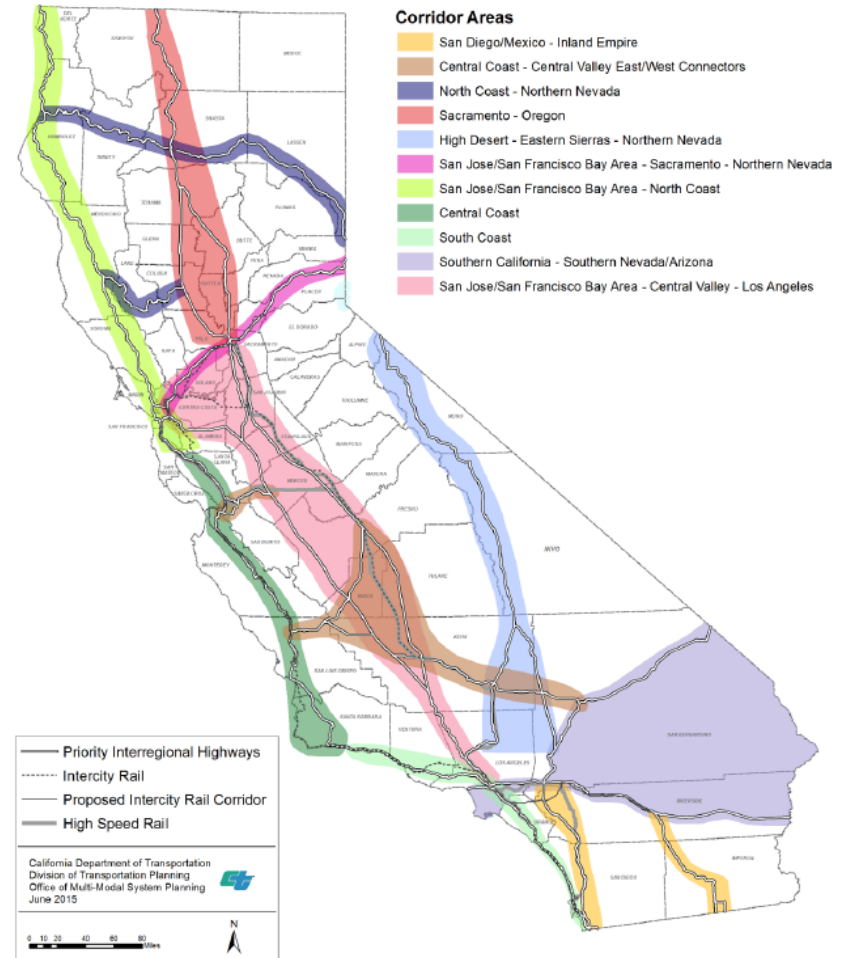


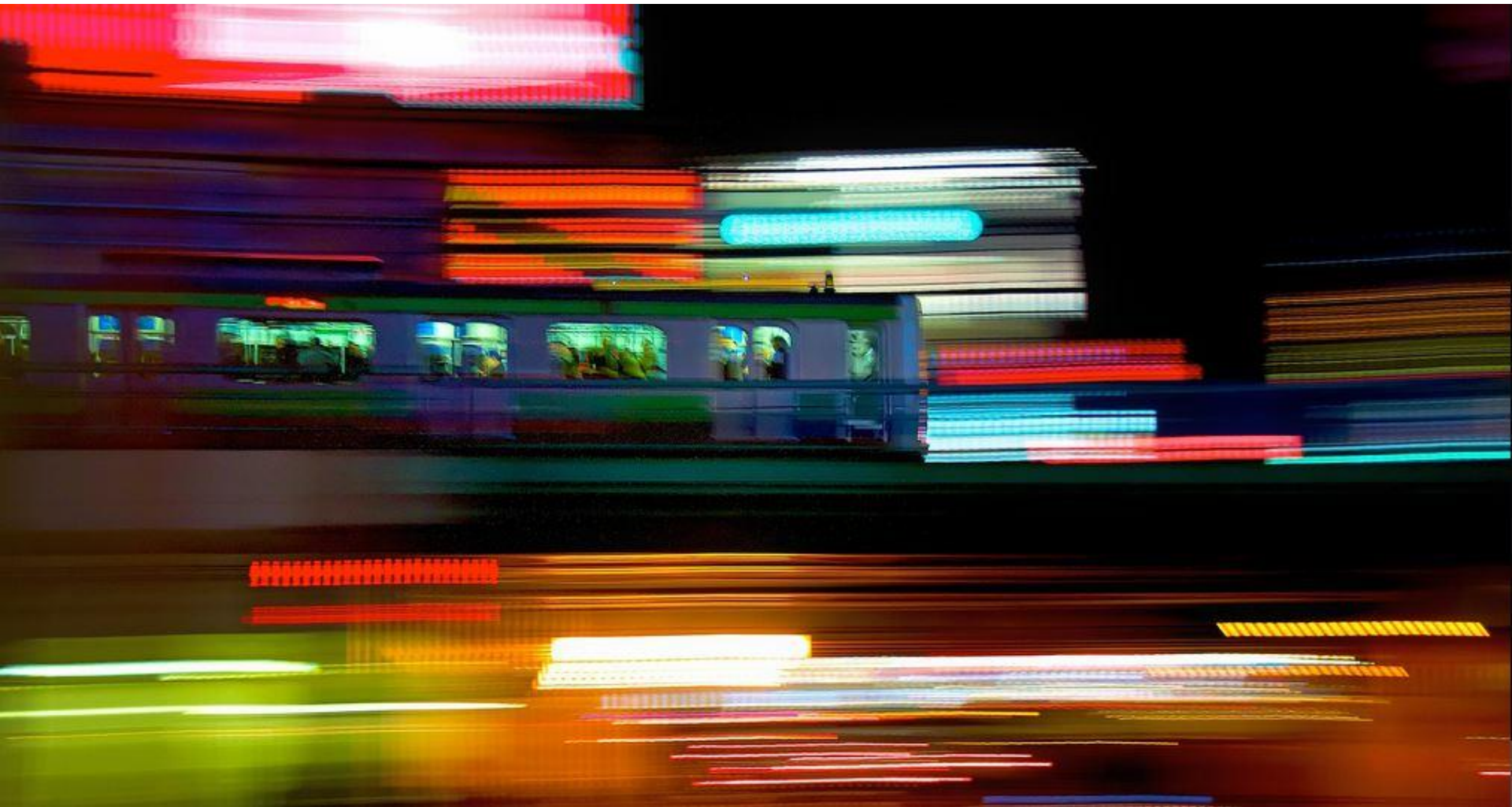
California Intercity Bus Study



CA Intercity Bus Study

- Coordination with:
 - State Rail Plan
 - Interregional Transportation Strategic Plan
- Changes Since 2008 CIBS
 - Multi-year funding
 - Maximum award limits have also increased
 - JARC merged into the 5311 program
 - FAST Act unsubsidized portions of private intercity bus service as matches to federal funds, incl. 5311(f)
 - Flexibility under Perata Law?





Coordination with JPAs, CHSRA, and Host Railroads



Coordination with JPAs, CHSRA, Host RRs, and Others

Examples of Other DRMT Efforts:

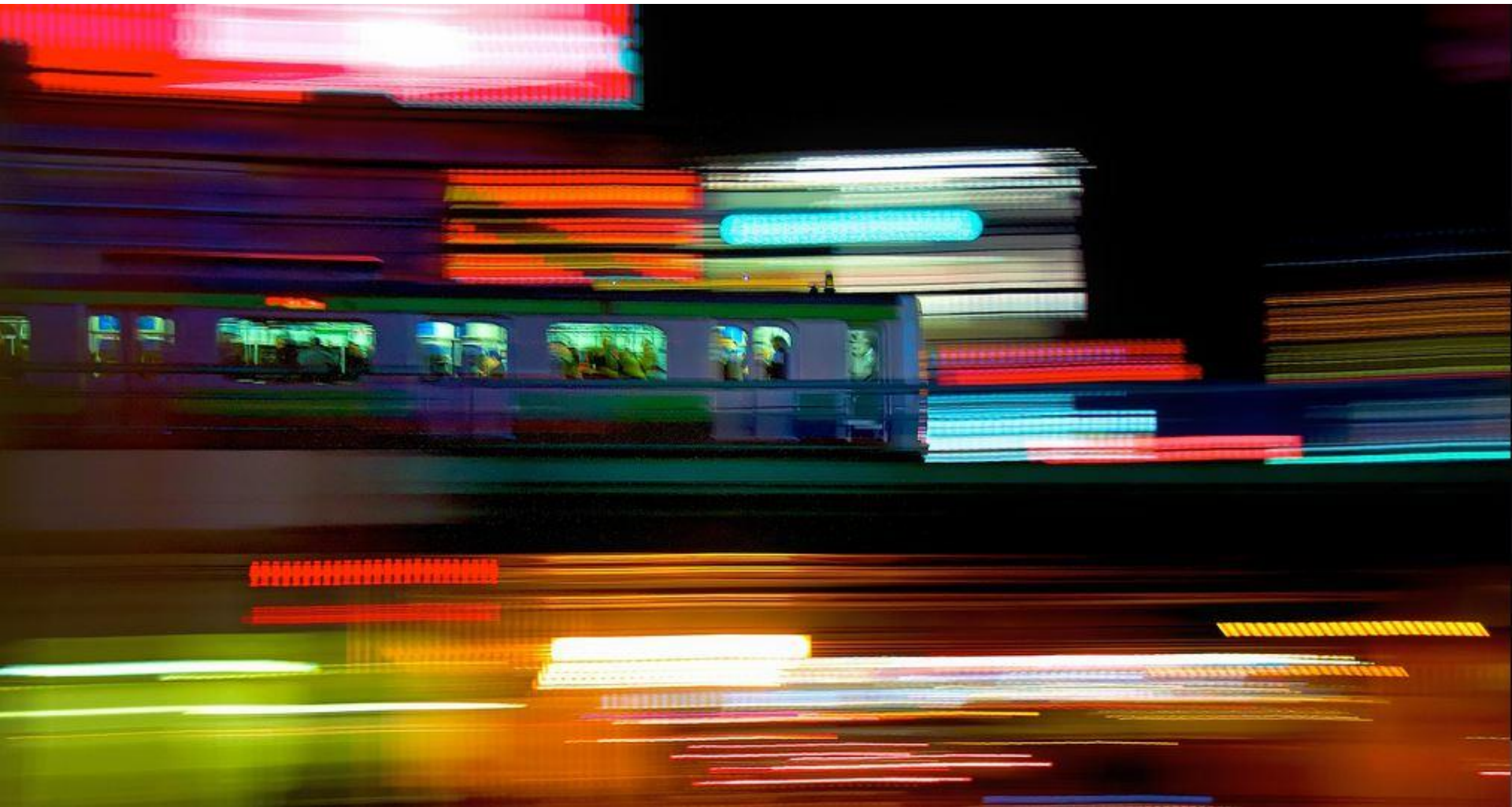
- Fare Integration
- Connected Corridors
- Blended Operations
- Freight Corridor Improvements and Shared Benefits
- Station and Station Area Planning (Sac Valley Station, hint, hint...)

Thank you!

Kyle Gradinger
Assistant Division Chief

May 16, 2017



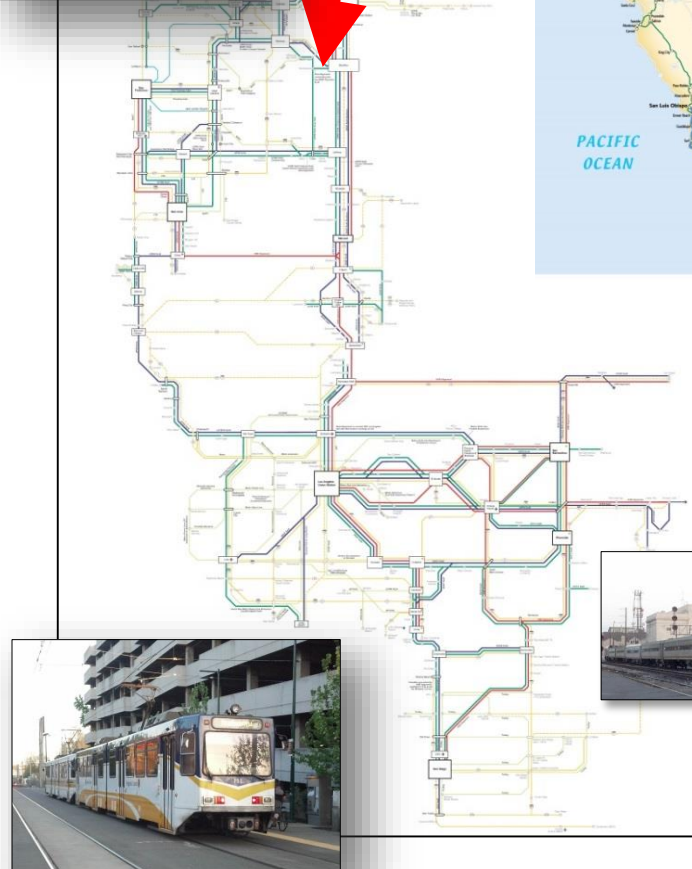


Network Integration Planning

Network Integration Strategic Service Plan

Potential Characteristics:

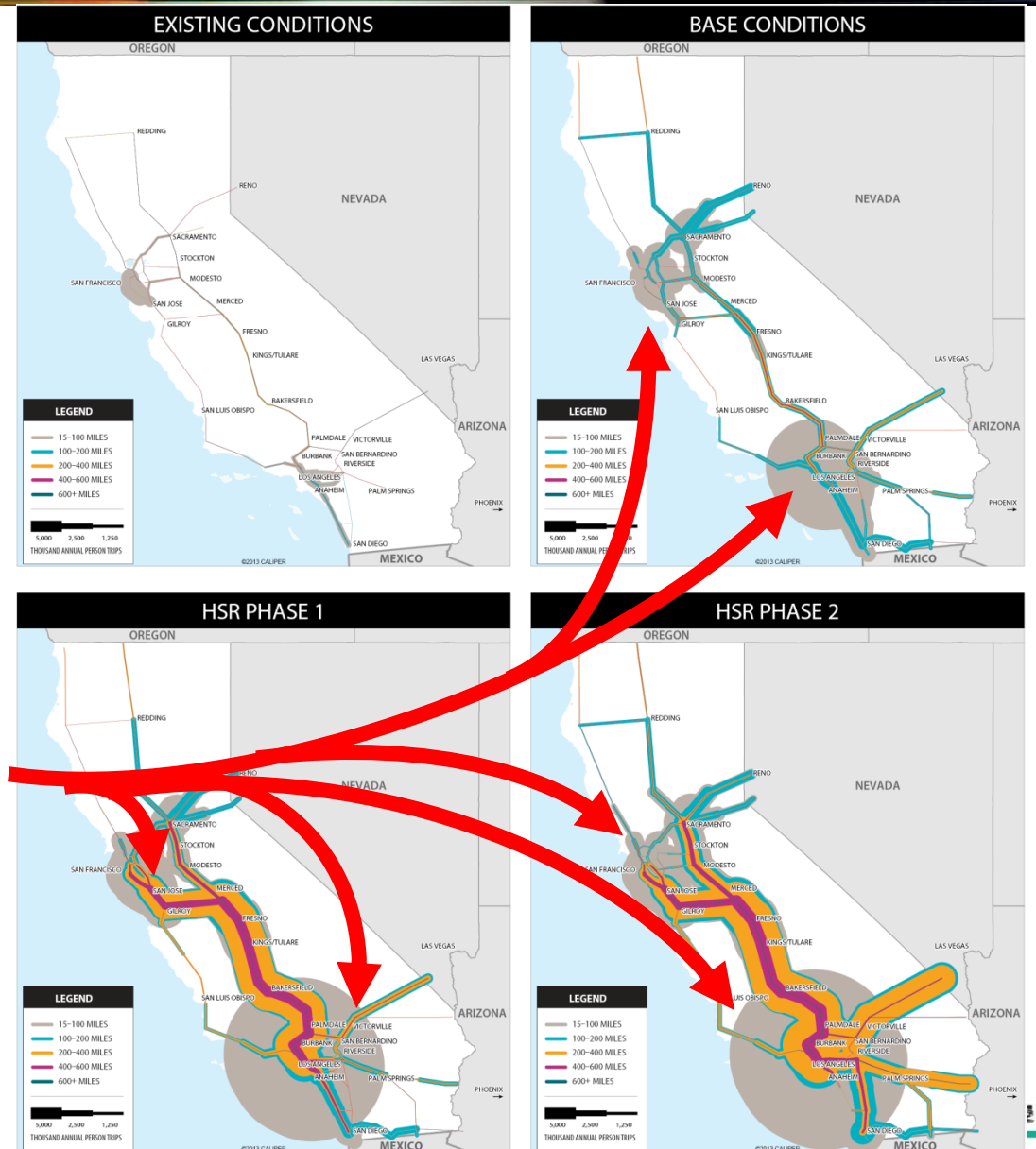
- **Useful** and **efficient** public transportation system
- System creates a **comprehensive network**
- **Leverages** the **opportunities** of an expanding **high-speed rail** system
- **Auto-competitive** travel times to offer a reliable alternative to highway travel
- **Seamless** door-to-door travel experience
- The **State** serving as a **coordinator** for planning, funding and technology decisions with system-wide impacts
- Relying on **local agencies** to **know what's best for their region.**



Why is a Statewide Vision Warranted?

Comparison of
rail ridership
potential by
travel distance.
(Thousand Annual
Person Trips)

These are local,
regional and
statewide gains
in ridership
potential with a
Network Vision!



Source: Rail Market Analysis Tool, CalSTA

Division of Rail & Mass Transportation

Building Blocks of Statewide Passenger Network

Potential
Phase 2 HSR

Potential New
Intercity

New
Connectivity
Projects

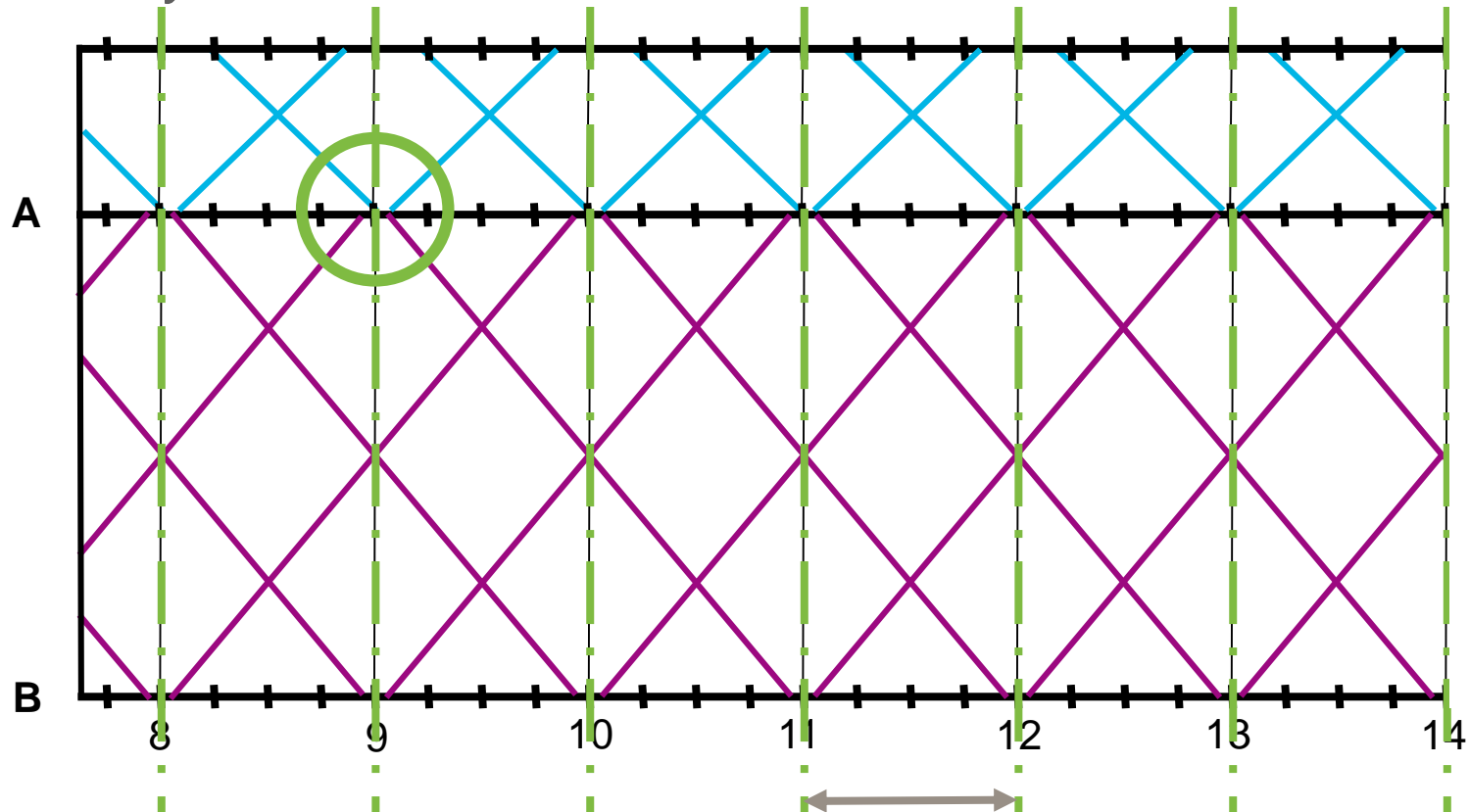
High Speed
Rail

Planned Service
Expansions

Existing Services – Intercity,
Regional Rail & Mass Transit

How? – Pulse Schedule System

Symmetry – 00'

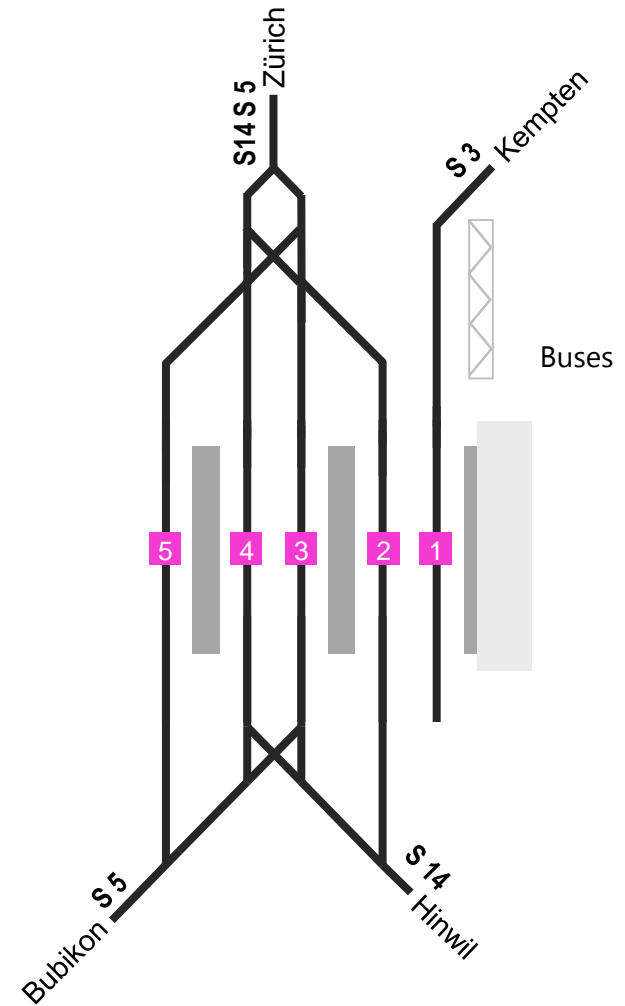
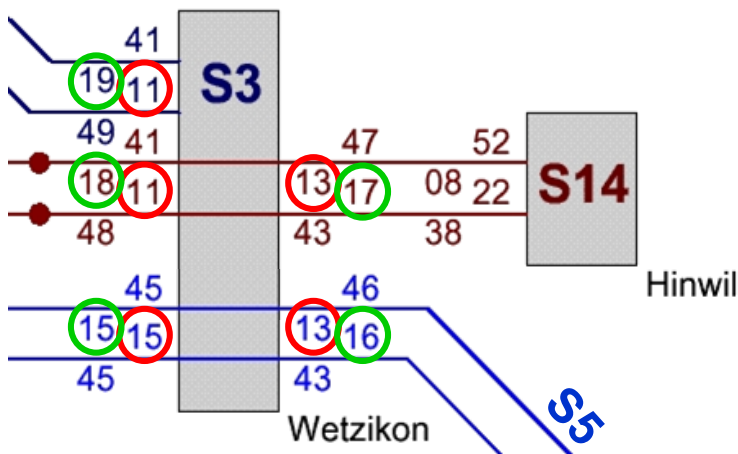


Symmetry – 00'

Regular Intervals

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Integrated Statewide Rail Network

